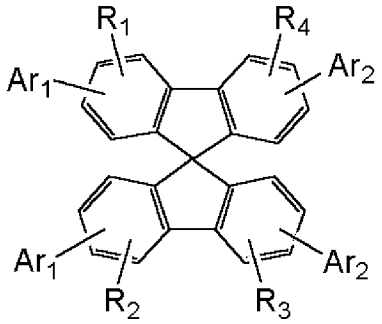
(b) Amendments to the Claims

Kindly cancel claims 1, 3 and 5-12 without prejudice or disclaimer. Please add new claims 13-18 as follows. A detailed listing of the claims is provided which replaces all earlier listings.

1.-12. (Cancelled).

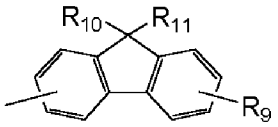
13. (New) An organic luminescence device comprising at least a pair of electrodes including an anode and a cathode and one or a plurality of layers containing an organic compound sandwiched between the pair of electrodes, wherein at least one of the layers containing the organic compound contains at least one spiro compound represented by the following general formula [I]:



[I]

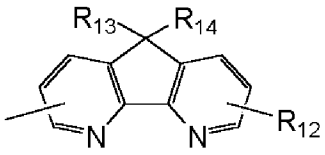
wherein R_1, R_2, R_3, and R_4 represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom, and R_1, R_2, R_3, and R_4 may be identical or different from each other; and Ar_1 and Ar_2 represent a substituted or unsubstituted condensed polycyclic aromatic group or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other and

wherein at least one of Ar_1 and Ar_2 is a condensed polycyclic aromatic group represented by one of the following general formula [III] to [VII]:



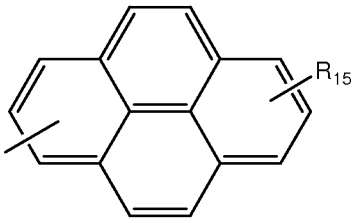
[III]

wherein R_9 represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{10} and R_{11} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other;

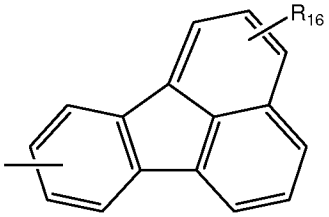


[IV]

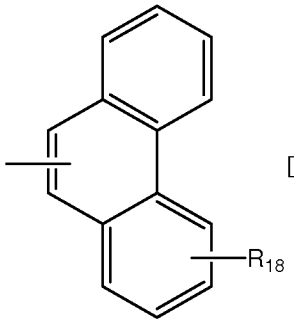
wherein R_{12} represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{13} and R_{14} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other; and



[V]



[VI]



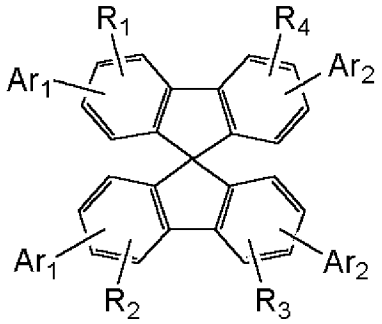
[VII]

wherein R_{15} to R_{18} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and

wherein at least an electron-transporting layer or a luminescent layer among the layers containing the organic compound contains at least one of the spiro compounds.

14. (New) An organic luminescence device comprising at least a pair of electrodes including an anode and a cathode and one or a plurality of layers containing an organic compound sandwiched between the pair of electrodes, wherein at least one of the

layers containing the organic compound contains at least one spiro compound represented by the following general formula [I]:



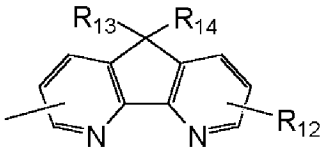
[I]

wherein R_1, R_2, R_3, and R_4 represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom, and R_1, R_2, R_3, and R_4 may be identical or different from each other; and Ar_1 and Ar_2 represent a substituted or unsubstituted condensed polycyclic aromatic group or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other and wherein at least one of Ar_1 and Ar_2 is a condensed polycyclic aromatic group represented by one of the following general formula [III] to [VII]:

[I I I]

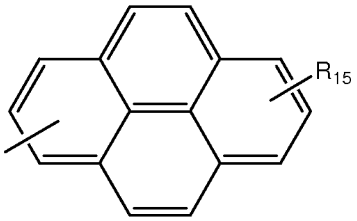
wherein R_9 represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{10} and R_{11} represent a hydrogen

atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other;

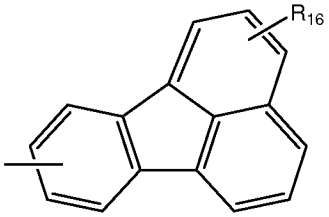


[IV]

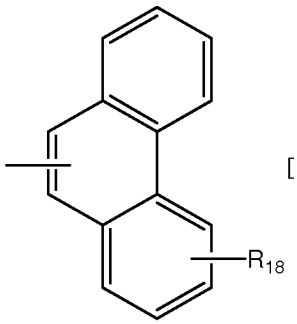
wherein R_{12} represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{13} and R_{14} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other; and



[V]



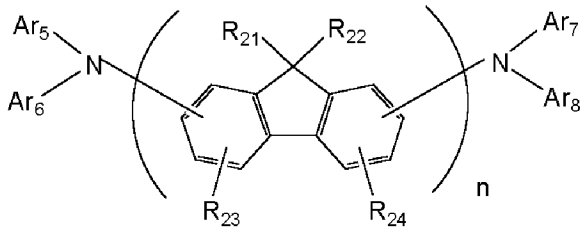
[VI]



[VII]

wherein R_{15} to R_{18} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and

wherein at least a luminescent layer among the layers containing the organic compound contains at least one of the spiro compounds and a fluorene compound represented by the following general formula [X]:

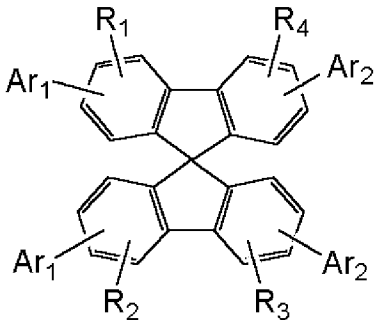


[X]

wherein R_{21} and R_{22} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, R_{21} themselves or R_{22} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{21} and R_{22} that are bonded to the same fluorene group may be identical or different from each other; R_{23} and R_{24} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a cyano group, or a halogen atom, and R_{23} themselves or R_{24} themselves, which are bonded

to different fluorene groups, may be identical or different from each other, and R_{23} and R_{24} that are bonded to the same fluorene group may be identical or different from each other; Ar_5, Ar_6, Ar_7, and Ar_8 represent a substituted or unsubstituted aromatic group, a substituted or unsubstituted heterocyclic group, a substituted or unsubstituted condensed polycyclic aromatic group, or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other, and Ar_5 and Ar_6 as well as Ar_7 and Ar_8 may be bonded with each other to form rings, respectively; and n represents an integral number of 1 to 10.

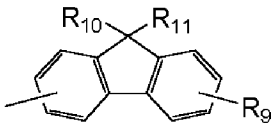
15. (New) An organic luminescence device comprising at least a pair of electrodes including an anode and a cathode and one or a plurality of layers containing an organic compound sandwiched between the pair of electrodes, wherein at least one of the layers containing the organic compound contains at least one spiro compound represented by the following general formula [I]:



[I]

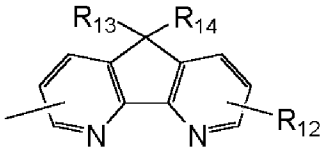
wherein R_1, R_2, R_3, and R_4 represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom, and R_1, R_2, R_3, and R_4 may be identical or different from each other; and Ar_1 and Ar_2 represent a substituted or unsubstituted

condensed polycyclic aromatic group or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other and wherein at least one of Ar_1 and Ar_2 is a condensed polycyclic aromatic group represented by one of the following general formula [III] to [VII]:



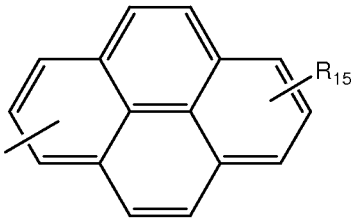
[III]

wherein R_9 represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{10} and R_{11} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other;

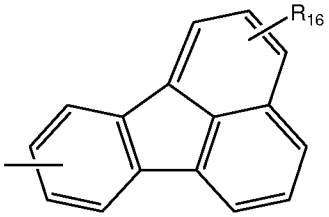


[IV]

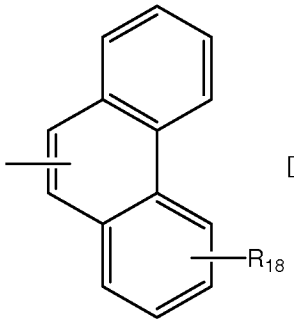
wherein R_{12} represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{13} and R_{14} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other; and



[V]



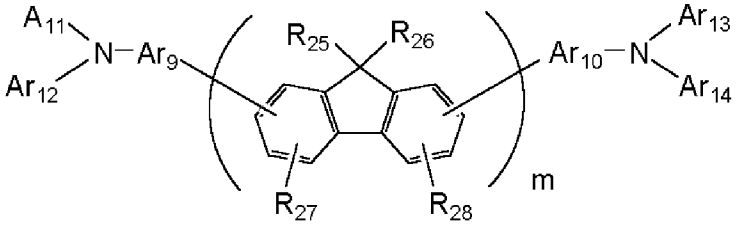
[VI]



[VII]

wherein R_{15} to R_{18} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and

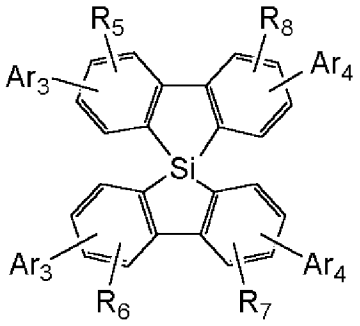
wherein at least a luminescent layer among the layers containing the organic compound contains at least one of the spiro compounds and a fluorene compound represented by the following general formula [XI]:



[X I]

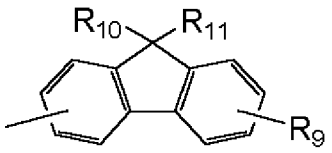
(wherein R_{25} and R_{26} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, R_{25} themselves or R_{26} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{25} and R_{26} that are bonded to the same fluorene group may be identical or different from each other; R_{27} and R_{28} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a cyano group, or a halogen atom, and R_{27} themselves or R_{28} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{27} and R_{28} that are bonded to the same fluorene group may be identical or different from each other; Ar_9 and Ar_{10} represent a substituted or unsubstituted divalent aromatic group or a substituted or unsubstituted divalent heterocyclic group, which may be identical or different from each other; Ar_{11}, Ar_{12}, Ar_{13}, and Ar_{14} represent a substituted or unsubstituted aromatic group, a substituted or unsubstituted heterocyclic group, a substituted or unsubstituted condensed polycyclic aromatic group, or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other, and Ar_{11} and Ar_{12} as well as Ar_{13} and Ar_{14} may be bonded with each other to form rings, respectively; and m represents an integral number of 1 to 10.)

16. (New) An organic luminescence device comprising at least a pair of electrodes including an anode and a cathode and one or a plurality of layers containing an organic compound sandwiched between the pair of electrodes, wherein at least one of the layers containing the organic compound contains at least one spiro compound represented by the following general formula [II]:



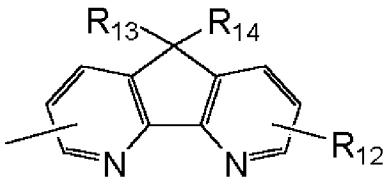
[I I]

wherein R_5, R_6, R_7, and R_8 represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom, and R_5, R_6, R_7, and R_8 may be identical or different from each other; and Ar_3 and Ar_4 represent a substituted or unsubstituted condensed polycyclic aromatic group or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other and wherein at least one of Ar_3 and Ar_4 is a condensed polycyclic aromatic group represented by one of the following general formula [III] to [VIII]:



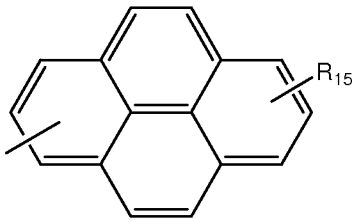
[I I I]

wherein R_9 represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{10} and R_{11} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other;

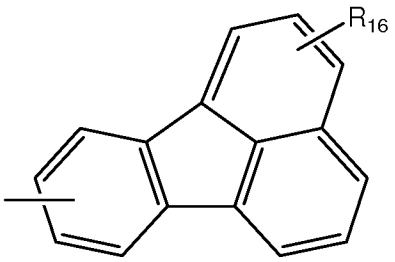


[IV]

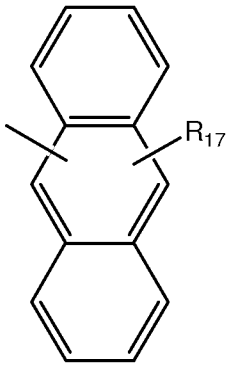
wherein R_{12} represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{13} and R_{14} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other; and



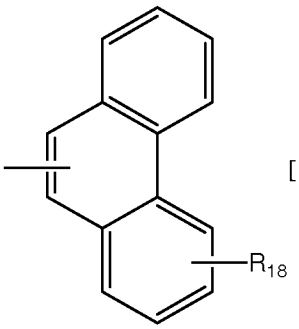
[V]



[VI]



[VII]

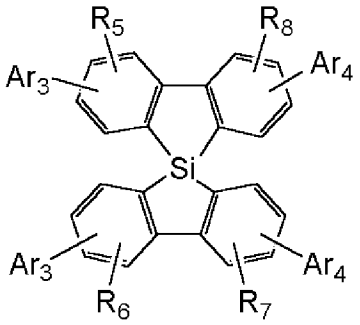


[VIII]

wherein R_{15} to R_{18} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom.

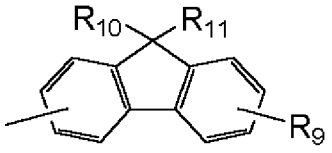
17. (New) An organic luminescence device comprising at least a pair of electrodes including an anode and a cathode and one or a plurality of layers containing an organic compound sandwiched between the pair of electrodes, wherein at least one of the

layers containing the organic compound contains at least one spiro compound represented by the following general formula [II]:



[I I]

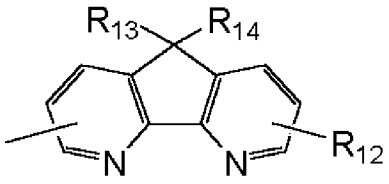
wherein R_5, R_6, R_7, and R_8 represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom, and R_5, R_6, R_7, and R_8 may be identical or different from each other; and Ar_3 and Ar_4 represent a substituted or unsubstituted condensed polycyclic aromatic group or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other and wherein at least one of Ar_3 and Ar_4 is a condensed polycyclic aromatic group represented by one of the following general formula [III] to [VIII]:



[I I I]

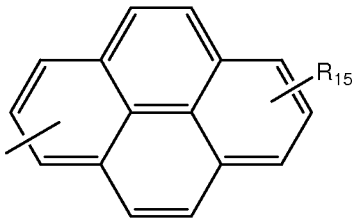
wherein R_9 represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{10} and R_{11} represent a hydrogen atom, a substituted or

unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other;

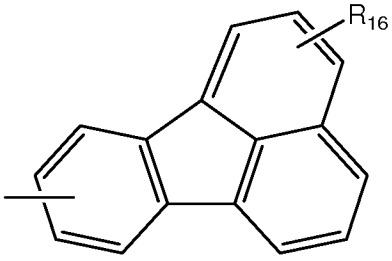


[IV]

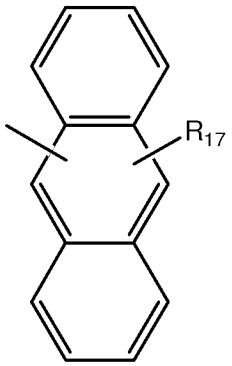
wherein R_{12} represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{13} and R_{14} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other; and



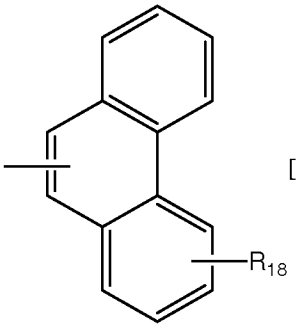
[V]



[VI]



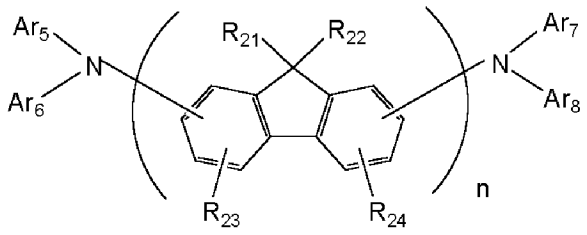
[VII]



[VIII]

wherein R_{15} to R_{18} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and

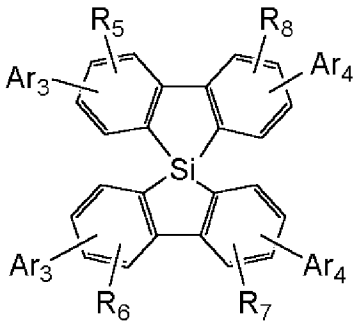
wherein at least a luminescent layer among the layers containing the organic compound contains at least one of the spiro compounds and a fluorene compound represented by the following general formula [X]:



[X]

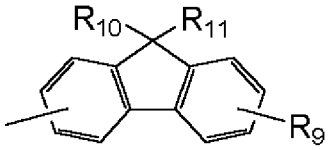
wherein R_{21} and R_{22} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, R_{21} themselves or R_{22} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{21} and R_{22} that are bonded to the same fluorene group may be identical or different from each other; R_{23} and R_{24} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a cyano group, or a halogen atom, and R_{23} themselves or R_{24} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{23} and R_{24} that are bonded to the same fluorene group may be identical or different from each other; Ar_5, Ar_6, Ar_7, and Ar_8 represent a substituted or unsubstituted aromatic group, a substituted or unsubstituted heterocyclic group, a substituted or unsubstituted condensed polycyclic aromatic group, or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other, and Ar_5 and Ar_6 as well as Ar_7 and Ar_8 may be bonded with each other to form rings, respectively; and n represents an integral number of 1 to 10.

18. (New) An organic luminescence device comprising at least a pair of electrodes including an anode and a cathode and one or a plurality of layers containing an organic compound sandwiched between the pair of electrodes, wherein at least one of the layers containing the organic compound contains at least one spiro compound represented by the following general formula [II]:



[II]

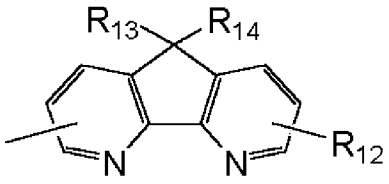
wherein R_5, R_6, R_7, and R_8 represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom, and R_5, R_6, R_7, and R_8 may be identical or different from each other; and Ar_3 and Ar_4 represent a substituted or unsubstituted condensed polycyclic aromatic group or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other and wherein at least one of Ar_3 and Ar_4 is a condensed polycyclic aromatic group represented by one of the following general formula [III] to [VIII]:



[III]

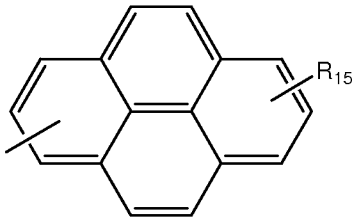
wherein R_9 represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{10} and R_{11} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or

unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other;

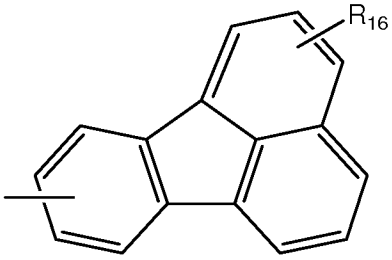


[IV]

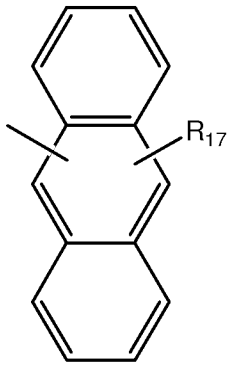
wherein R_{12} represents a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and R_{13} and R_{14} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, which may be identical or different from each other; and



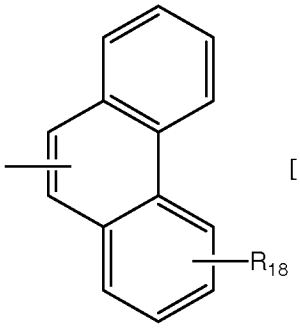
[V]



[VI]



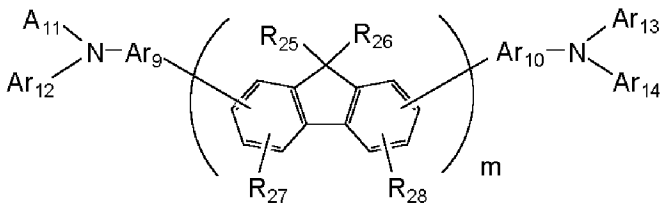
[VII]



[VIII]

wherein R_{15} to R_{18} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a substituted amino group, a cyano group, or a halogen atom; and

wherein at least a luminescent layer among the layers containing the organic compound contains at least one of the spiro compounds and a fluorene compound represented by the following general formula [XI]:



[XI]

(wherein R_{25} and R_{26} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, or a substituted or unsubstituted heterocyclic group, R_{25} themselves or R_{26} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{25} and R_{26} that are bonded to the same fluorene group may be identical or different from each other; R_{27} and R_{28} represent a hydrogen atom, a substituted or unsubstituted alkyl group, a substituted or unsubstituted aralkyl group, a substituted or unsubstituted aryl group, a substituted or unsubstituted heterocyclic group, a cyano group, or a halogen atom, and R_{27} themselves or R_{28} themselves, which are bonded to different fluorene groups, may be identical or different from each other, and R_{27} and R_{28} that are bonded to the same fluorene group may be identical or different from each other; Ar_9 and Ar_{10} represent a substituted or unsubstituted divalent aromatic group or a substituted or unsubstituted divalent heterocyclic group, which may be identical or different from each other; Ar_{11}, Ar_{12}, Ar_{13}, and Ar_{14} represent a substituted or unsubstituted aromatic group, a substituted or unsubstituted heterocyclic group, a substituted or unsubstituted condensed polycyclic aromatic group, or a substituted or unsubstituted condensed polycyclic heterocyclic group, which may be identical or different from each other, and Ar_{11} and Ar_{12} as well as Ar_{13} and Ar_{14} may be bonded with each other to form rings, respectively; and m represents an integral number of 1 to 10.)